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**Title: JP11238518A2: NONAQUEOUS ELECTROLYTE BATTERY**

**Derwent Title:** Non-aqueous electrolyte battery used in electric vehicles - has container on upper portion of which lid is provided which opens due to internal pressure [\[Derwent Record\]](#)

**Country:** JP Japan

**Kind:** A

**Inventor:** TERASAKI MASANAO;

**Assignee:** JAPAN STORAGE BATTERY CO LTD  
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**Published / Filed:** 1999-08-31 / 1998-02-20

**Application Number:** JP1998000055872

**IPC Code:** [H01M 6/16](#); [H01M 2/12](#); [H01M 2/34](#); [H01M 10/40](#);

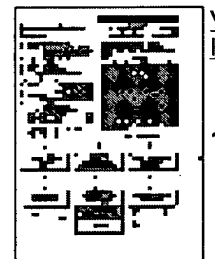
**Priority Number:** 1998-02-20 [JP1998199855872](#)

**Abstract:** PROBLEM TO BE SOLVED: To provide a battery in which hydrogen gas is not generated, even if the air penetrates into its nonaqueous electrolyte by arranging an insulating liquid that does not have compatibility with the nonaqueous electrolyte and water on the upper part of the nonaqueous electrolyte.

SOLUTION: A rupture disc 6 is, for instance, a stainless steel plate having a thickness of 0.2 mm and is an inside pressure releasing mechanism to be ruptured by a pressure above a specified pressure, when the inside pressure is abnormally increased by gas generation and temperature rise due to overcharging, large current discharge or the like. If the rupture disc 6 is broken, the vapor of the gas and the electrolyte inside a battery is released to the outside, and at the same time, the outside air also intrudes into the battery, the water vapor in the outside air reacts with a negative electrode and generates heat, hydrogen gas is generated, and the temperature of the battery is increased. Then, the inside of the battery is filled with the hydrogen gas and is brought into a hazardous condition. A fluid paraffin 7 that is used to prevent this is not compatible with water, is an insulating liquid having a specific gravity smaller than that of a nonaqueous electrolyte, is floating on the upper part of the nonaqueous electrolyte 3 in the form of a layer, and prevents the generation of the hydrogen gas.

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**Family:** None



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References:

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PDF	Patent	Pub.Date	Inventor	Assignee	Title
	US6586912	2003-07-01	Tsukamoto; Hisashi	Quallion LLC	Method and apparatus for amplitude limiting battery temperature spikes

Other Abstract  
Info:

CHEMABS 131(13)172681N CHEMABS 131(13)172681N DERABS C1999-546758 DERABS  
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(19)

(11) Publication number: **11238:**

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**PATENT ABSTRACTS OF JAPAN**(21) Application number: **10055872**(51) Intl. Cl.: **H01M 6/16** H01M 2/12 H01M 2/34  
10/40(22) Application date: **20.02.98**

(30) Priority:	(71) Applicant: <b>JAPAN STORAGE BATTERY LTD</b>
(43) Date of application publication: <b>31.08.99</b>	(72) Inventor: <b>TERASAKI MASANAO</b>
(84) Designated contracting states:	(74) Representative:

**(54) NONAQUEOUS ELECTROLYTE BATTERY**

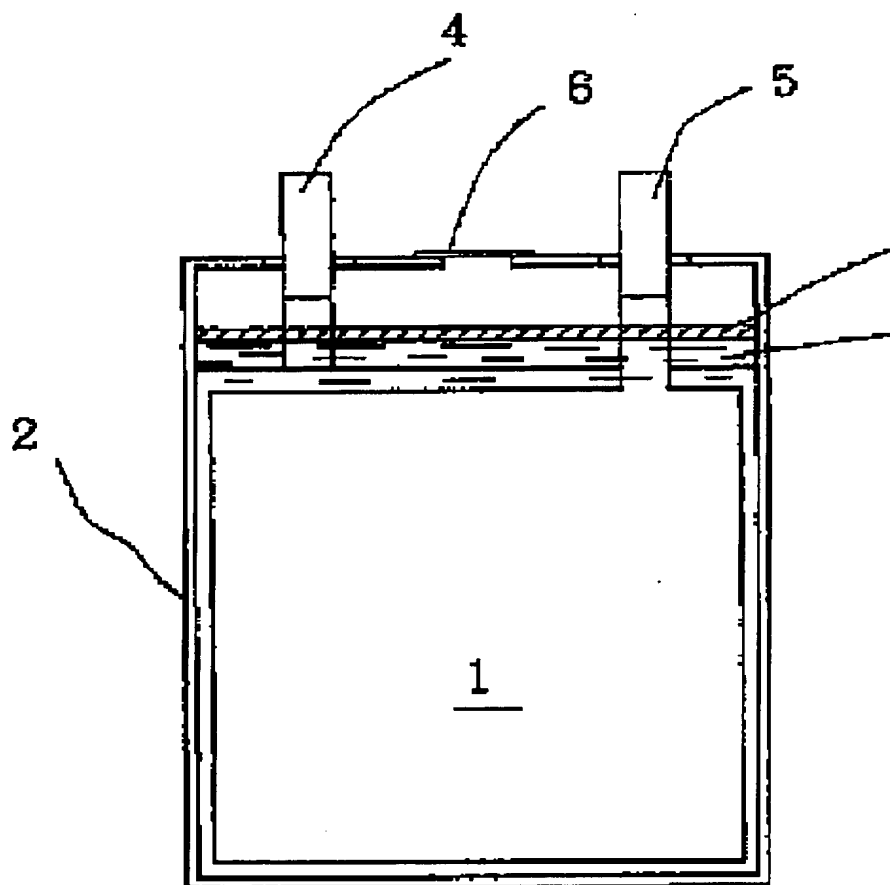
(57) Abstract:

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